

REMARKS

This Amendment is being filed in response to the Office Action mailed December 22, 2008, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1, 3-8 and 10-22 are pending in the application, where claims 2 and 9 had been previously canceled without prejudice and claims 15-22 have been currently added. Claims 1 and 8 are independent.

In the Office Action, 1-6 and 8-14 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,680,577 (Inukai) in view of U.S. Patent No. 4,967,192 (Hirane). Further, claim 7 is rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Inukai in view of Hirane and U.S. Patent Application Publication No. 2002/0030647 (Hack). It is respectfully submitted that claims 1, 3-8 and 10-22 are patentable over Inukai, Hirane and Hack for at least the following reasons.

On page 3 of the Office Action, in rejecting claim 2, FIG. 5A-

5F, column 3, lines 25-40 and column 8, lines 51-55 of Inukai are cited to allegedly show that the duration of one phase is approximately n times the duration of the other phase, where n is the number n of drive current levels including zero of first drive currents.

It is respectfully submitted that the cited sections of Inukai merely disclose dividing a frame into partitions and using a ratio of write-in period to display period to perform multiple write-ins. In particular, column 3, lines 25-40 of Inukai specifically discloses:

A period in which an image is completely displayed in an image region is referred to as one frame period. The oscillation frequency of a normal EL display is 60 Hz, and 60 frames exist during one second, as shown in FIG. 5A. For example, when performing 6 bit digital gradation display (64 gradations) in a fourth frame, if one frame is divided into 16 partitions and the ratio of the write-in period to the display period is determined as 6:10, then writing in can be performed 6 times (≈ 6.24 msec) during the write-in period, as shown in FIG. 5B. Note that the six write-ins 1 to 6 are performed in order from 1 to 6. Further, the display periods corresponding to the write-in periods (from write-in 1 to write-in 6) are set as displays 1 to 6, respectively.

Furthermore, the display periods are set so that display 1:display 2:display 3:display 4:display 5:display 6=1:1/2:1/4:1/8:1/16:1/32. (Emphasis added)

Further, column 8, lines 51-55 of Inukai specifically discloses:

The data signal input to the pixel portion is a digital signal, and furthermore differing from a liquid crystal display device the present invention is not a voltage gradation display, and therefore the digital data signal having "0" or "1" information is input, as is, to the pixel portion. (Emphasis added)

In addition, FIGS 5A-5F of Inukai merely show overall driver timing of write-in periods and display periods when performing time division gradation display. There is no indication in FIGS 5A-5F that the duration of one phase is approximately n times a duration of the other phase, where n is the number n of drive current levels including zero, as recited in independent claims 1 and 8

It is respectfully submitted that Inukai does not teach or suggest the present invention as recited in independent claim 1, and similarly recited in independent claim 8 which, amongst other patentable elements, recites (illustrative emphasis provided):

wherein the first plurality of drive currents comprises a number n of drive current levels including zero, and wherein a duration of one phase is approximately n times a duration of the other phase.


Having the duration of one phase be approximately n times the duration of the other phase, where n is the number of drive current levels of a the first plurality of drive currents, is nowhere disclosed or suggested in Inukai. Hirane and Hack are cited to allegedly show other features and do not remedy the deficiencies in Inukai.

Accordingly, it is respectfully submitted that independent claims 1 and 8 should be allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 3-7 and 10-22 should also be allowed at least based on their dependence from amended independent claims 1 and 8.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

By 

Dicran Halajian, Reg. 39,703
Attorney for Applicant(s)
March 19, 2009

THORNE & HALAJIAN, LLP
Applied Technology Center
111 West Main Street
Bay Shore, NY 11706
Tel: (631) 665-5139
Fax: (631) 665-5101